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ABSTRACT

This guide to Indiana's academic standards in English/Language Arts, Mathematics, Science, and the Social Studies for Grade 3 students begins with a note to students and another note to parents. The guide spells out what students should know and be able to do in each subject, at each grade level. The guide also lists 10 things parents can do to help students succeed and includes information on assessments or measures of student learning. The guide cites the following six English/Language Arts standards: (1) Reading: Word Recognition, Fluency, and Vocabulary Development; (2) Reading: Comprehension; (3) Reading: Literary Response and Analysis; (4) Writing: Process; (5) Writing: Applications (Different Types of Writing and Their Applications); (6) Writing: English Language Conventions; and (7) Listening and Speaking: Skills, Strategies, and Applications. It lists these six standards for Mathematics: Number Sense, Computation, Algebra and Functions, Geometry, Measurement, and Problem Solving. The guide enumerates the following six standards for Science: Nature of Science and Technology, Scientific Thinking, Physical Setting, Living Environment, Mathematical World, and Common Themes. It lists these five standards for the Social Studies: History; Civics and Government; Geography; Economics; and Individuals, Society, and Culture. Attached are sheets for notes. (NKA)

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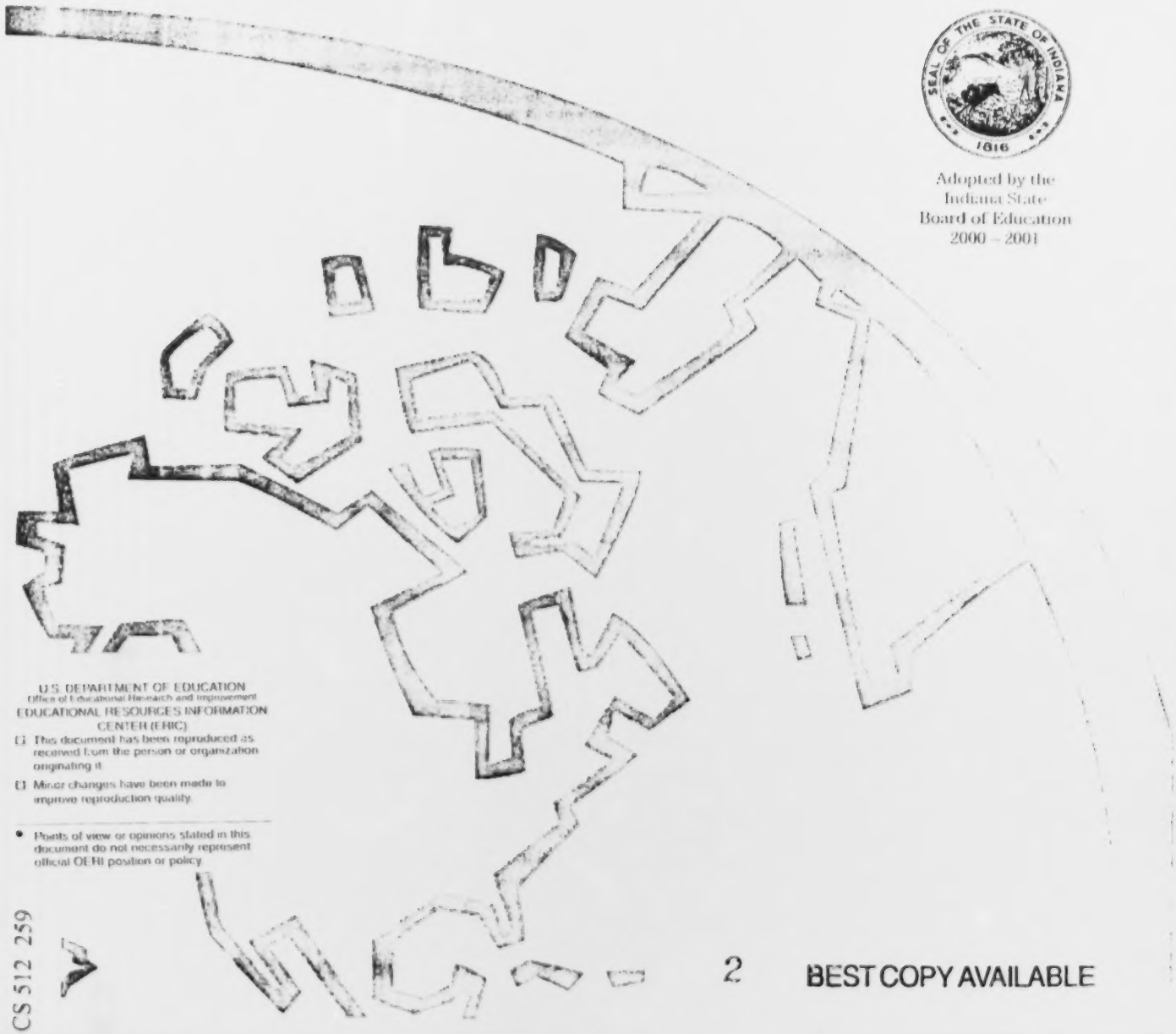
Grade 2

Indiana's Academic Standards

English/Language Arts
Mathematics
Science
Social Studies



Adopted by the
Indiana State
Board of Education
2000 – 2001

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Dear Student,

The world is changing fast. In order for you to succeed in school, at work, and in the community, you will need more skills and knowledge than ever before.

Getting in shape academically is the single most important thing you can do to prepare for a successful future.

This booklet of Academic Standards clearly spells out what you should know and be able to do in each subject, at your grade level. Examples are given to help you understand what is required to meet the Standards. **Please review this guide with your teachers and share it with your parents and family.**

Whether you go on to be a surgeon, computer technician, teacher, or airplane mechanic, learning never stops. There will always be a more demanding computer application, a new invention, or a more complex project awaiting you.

To be ready for tomorrow — get in top academic shape today. Use this guide year round to check your progress.

Dear Parent,

The demand is greater than ever for people who can read, write, speak effectively, analyze problems and set priorities, learn new things quickly, take initiative, and work in teams. Technology has already transported us into a time where the next e-commerce opportunity is limited only by our imagination.

That's why Indiana has established new Academic Standards in English/language arts, mathematics, science, and social studies. These world-class Standards outline what your student should know and be able to do in each subject, at each grade level.

Indiana's new Academic Standards were recommended by Indiana's Education Roundtable and adopted by the State Board of Education. According to Achieve, Inc. and other respected education experts, these Standards are among the best in the nation.

Higher academic standards pose a challenge, but Indiana students have shown that they can measure up. Our students know that higher expectations lead to greater rewards — and they're prepared to work harder. We know that by setting specific goals, everyone wins. Teachers have clear targets, students know what's expected, and you have detailed information about your child's strengths and weaknesses.

How can you be sure that your student will be ready to meet these challenges? First, keep in mind that learning does not take place only in the classroom. Students spend far more time at home than they do in school. How they spend their time can make a real difference. That is where your help is the most important.

On the next page is a list of 10 things you can do to help your student get a good education. **Nothing will have a bigger impact on your student's success than your involvement in his or her education.** We hope you use this guide as a tool to help your child succeed today and in the future.

Sincerely,

Frank O'Bannon
Governor Frank O'Bannon

Dr. Suellen Reed
Dr. Suellen Reed,
Superintendent of Public Instruction

Stan Jones
Stan Jones,
Commissioner for Higher Education

10 things parents can do to help students succeed

1. **Build relationships with your child's teachers.** Find out what each teacher expects of your child and how you can help your child prepare to meet those expectations.

2. **Read.** Reading is the foundation for all learning. Read to your young child, encourage your older child to read to you, or spend time together as a family reading. All this helps your child develop strong reading habits and skills from the beginning and reinforces these habits and skills as your child grows. Reading is one of the most important contributions you can make to your child's education.

3. **Practice writing at home.** Letters, journal entries, e-mail messages, and grocery lists are all writing opportunities. Show that writing is an effective form of communication and that you write for a variety of purposes.

4. **Make math part of everyday life.** Cooking, gardening, paying bills, and even shopping are all good ways to help your child understand and use mathematics skills. Show that there may be many ways to get to the right answer and encourage your child to explain his or her method.

5. **Ask your child to explain his or her thinking.** Ask lots of "why" questions. Children should be able to explain their reasoning, how they came up with the right answer, and why they chose one answer over another.

6. **Expect that homework will be done.** Keep track of your child's homework assignments and regularly look at his or her completed work. Some teachers now give parents a number to call for a recorded message of that day's homework assignments; others put the information on the Internet. If your school doesn't offer these features, talk to the teacher about how you can get this important information. Even if there aren't specific assignments, find out how you can stay informed about what your child is working on so that you can help at home.

7. **Use the community as a classroom.** Feed your child's curiosity about the world 365 days a year. Use the library to learn more about the history of your town. A visit to a farmer's market can help your child picture our state's rich agricultural tradition. Take your young child to zoos and parks and your older child to museums and workplaces to show how learning connects to the real world.

8. **Encourage group study.** Open your home to your child's friends for informal study sessions. Promote outside formal study groups through church or school organizations or other groups. Study groups will be especially important as your child becomes older and more independent. The study habits your child learns now will carry over into college and beyond.

9. **Help other parents understand academic expectations.** Use your school and employee newsletters, athletic associations, booster clubs, a PTA or PTO meeting, or just a casual conversation to help other parents understand what academic standards mean for them, their children, and their school and how they can help their children learn at home.

10. **Spend time at school.** The best way to know what goes on in your child's school is to spend time there. If you're a working parent, this isn't easy, and you may not be able to do it very often. But "once in awhile" is better than "never."

Remember: *You are the most important influence on your child. Indiana's Academic Standards give you an important tool to ensure that your child gets the best education possible.*

Measuring Student Learning

Children develop at different rates. Some take longer and need more help to learn certain skills. Assessments, like ISTEP+, help teachers understand how students are progressing and assist in identifying academic areas where students may need additional attention.

Assessments also provide a measure of school accountability – assisting schools in their efforts to align curriculum and instruction with the state's Academic Standards and reporting progress to parents and the public. Students in designated grades take ISTEP+ in the fall of each school year – with the assessment based on what the child should have learned and retained from the previous year.

Core 40 End-of-Course Assessments are given at the end of specific high school classes and are a cumulative assessment of what students should have learned during that course. End-of-Course Assessments also provide a means to ensure the quality and rigor of high school courses across the state. Voluntary for schools at this time, a selection of these assessments will be phased in over the next five years.

◗ Indicates mandatory ISTEP+ testing ♦ Indicates voluntary assessments

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4
	♦Reading	♦Reading	◗ English/Lang. Arts ◗ Mathematics	

What's the Goal? By Grade 4, have students moved beyond learning to read toward "reading to learn" other subjects? Can each student write a short, organized essay? Can each student use math skills to solve everyday, real-world problems?

Grade 5	Grade 6	Grade 7	Grade 8
◗ Science (begins 2003) ◗ Social Studies (begins 2004)	◗ English/Lang. Arts ◗ Mathematics	◗ Science (begins 2005) ◗ Social Studies (begins 2006)	◗ English/Lang. Arts ◗ Mathematics

What's the Goal? By Grades 7 and 8, have students developed strong enough study habits in English and math skills to be ready for high school?

Grade 9	Grade 10 (GQE)	Grade 11	Grade 12	Graduation
◗ Science (begins 2007) ◗ Social Studies (begins 2008)	◗ English/Lang. Arts ◗ Mathematics	(two re-tests available for those who have not passed the GQE)	(two re-tests available for those who have not passed the GQE)	(or continued extra help)
♦Core 40 End-of-Course Assessments	♦Core 40 End-of-Course Assessments	♦Core 40 End-of-Course Assessments	♦Core 40 End-of-Course Assessments	

What's the Goal?
By Grade 12, can students read well enough to pass a driver's exam, understand an appliance manual, or compare two opposing newspaper editorials? Could students write an effective job application letter? By testing skills like these in Grade 10, teachers know whether – and in which skill area – students need more attention before it's time to graduate.

For more information visit www.doe.state.in.us/standards and click on Assessment or call 1-800-54-ISTEP (1-888-544-7837).

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Standard 1

READING: Word Recognition, Fluency, and Vocabulary Development

Students understand the basic features of words. They select letter patterns and know how to translate them into spoken language using phonics (an understanding of the different letters that make different sounds), syllables, word parts (un-, -ful), and context clues (the meaning of the text around a word). They apply this knowledge to achieve fluent (smooth and clear) oral and silent reading.

Decoding and Word Recognition

3.1.1 Know and use more difficult word families (*-ight*) when reading unfamiliar words.

3.1.2 Read words with several syllables.

3.1.3 Read aloud grade-level-appropriate narrative text (stories) and expository text (information) fluently and accurately and with appropriate timing, change in voice, and expression.

Vocabulary and Concept Development

3.1.4 Determine the meanings of words using knowledge of synonyms (words with the same meaning), antonyms (words with opposite meanings), homophones (words that sound the same but have different meanings and spellings), and homographs (words that are spelled the same but have different meanings).

> Example: Understand that words, such as *fair* and *fare*, are said the same way but have different meanings. Know the difference between two meanings of the word *lead* when used in sentences, such as "The pencil has *lead* in it" and "I will *lead* the way."

3.1.5 Demonstrate knowledge of grade-level-appropriate words to speak specifically about different issues.

3.1.6 Use sentence and word context to find the meaning of unknown words.

3.1.7 Use a dictionary to learn the meaning and pronunciation of unknown words.

3.1.8 Use knowledge of prefixes (word parts added at the beginning of words such as *un-, pre-*) and suffixes (word parts added at the end of words such as *-er, ful, -less*) to determine the meaning of words.

Standard 2

READING: Comprehension

Students read and understand grade-level-appropriate material. They use a variety of comprehension strategies, such as asking and responding to essential questions, making predictions, and comparing information from several sources to understand what is read. The selections in the **Indiana Reading List** *(available online at www.doe.state.in.us/standards/readinglist.html) illustrate the quality and complexity of the materials to be read by students. In addition to their regular school reading, at Grade 3, students read a variety of grade-level-appropriate narrative (story) and expository (informational and technical) texts, including classic and contemporary literature, poetry, children's magazines and newspapers, reference materials, and online information.*

Structural Features of Informational and Technical Materials

3.2.1 Use titles, tables of contents, chapter headings, a glossary, or an index to locate information in text.

Comprehension and Analysis of Grade-Level-Appropriate Text

3.2.2 Ask questions and support answers by connecting prior knowledge with literal information from the text.

Example: When reading informational materials about science topics or social science subjects, compare what is read to background knowledge about the subject.

3.2.3 Show understanding by identifying answers in the text.

Example: After generating a question about information in a text, skim and scan the remaining text to find the answer to the question.

3.2.4 Recall major points in the text and make and revise predictions about what is read.

Example: Read a story, such as *Storm in the Night* by Mary Slattery Stolz or part of *Ramona Quimby* by Beverly Cleary, and predict what is going to happen next in the story. Confirm or revise the prediction based on further reading.

3.2.5 Distinguish the main idea and supporting details in expository (informational) text.

Example: Read an informational text, such as *The Magic School Bus Inside the Earth* by Joanna Cole or *Volcano* by Christopher Lampton, and make a chart listing the main ideas from the text and the details that support them.

3.2.6 Locate appropriate and significant information from the text, including problems and solutions.

Example: Identify the problem faced by a character in a book, such as *A Gift for Tia Rosa* by Karen T. Taha, and explain how the character solved his or her problem. Identify how problems can form the motivations for new discoveries or inventions by reading informational texts about famous inventors, scientists, or explorers, such as Thomas Edison or Jonas Salk.

3.2.7 Follow simple multiple-step written instructions.

Standard 3

READING: Literary Response and Analysis

Students read and respond to a wide variety of significant works of children's literature. They identify and discuss the characters, theme (the main idea of a story), plot (what happens in a story), and the setting (where a story takes place) of stories that they read. The selections in the **Indiana Reading List** *(available online at www.doe.state.in.us/standards/readinglist.html) illustrate the quality and complexity of the materials to be read by students.*

Structural Features of Literature

3.3.1 Recognize different common genres (types) of literature, such as poetry, drama, fiction, and nonfiction.

Example: Look at the same topic, such as cranes, and see how it is shown differently in various forms of literature, such as the poem "On the Run" by Douglas Florian, the play *The Crane Wife* by Sumiko Yagawa, Anne Laurin's fictional book *Perfect Crane*, and the nonfiction counting book *Counting Cranes* by Mary Beth Owens.

Narrative Analysis of Grade-Level-Appropriate Text

3.3.2 Comprehend basic plots of classic fairy tales, myths, folktales, legends, and fables from around the world.

Example: Read and discuss the plots of the folktales from around the world that explain why animals are the way they are, such as *Why Mosquitoes Buzz in People's Ears* retold by Verna Aardema or *How the Leopard Got Its Spots* by Justine and Ron Fontes. Plot each story onto a story map.

3.3.3 Determine what characters are like by what they say or do and by how the author or illustrator portrays them.

Example: Discuss and write about the comical aspects of the motorcycle-riding mouse, Ralph S. Mouse, the main character in Beverly Cleary's book by the same name.

3.3.4 Determine the theme or author's message in fiction and nonfiction text.

Example: Look at the admirable qualities in Abraham Lincoln as shown in both the fictional story, *More than Halfway There* by Janet Halliday Ervin, and the nonfiction biography, *Abe Lincoln's Hat* by Martha Brenner.

3.3.5 Recognize that certain words and rhythmic patterns can be used in a selection to imitate sounds.

Example: Discuss the different words that are used to imitate sounds. To explore these words further, read a book on the topic, such as *Cock-a-doodle doo!: What Does It Sound Like to You?* by Marc Robinson, in which the author discusses the words that various languages use for such sounds as a dog's bark, a train's whistle, and water dripping.

3.3.6 Identify the speaker or narrator in a selection.

Example: Read a book, such as *Class Clown* by Johanna Hurwitz or *Dinner at Aunt Connie's House* by Faith Ringgold, and identify who is telling the story. Share examples from the story for how the reader can tell that it is told by that character.

Standard 4

WRITING: Process

Students find and discuss ideas for writing and keep a list of writing ideas. Students write clear sentences and paragraphs that develop a central idea. Students progress through the stages of the writing process, including prewriting, drafting, revising, and editing multiple drafts.

Organization and Focus

3.4.1 Find ideas for writing stories and descriptions in conversations with others, and in books, magazines, school textbooks, or on the Internet.

3.4.2 Discuss ideas for writing, use diagrams and charts to develop ideas, and make a list or notebook of ideas.

3.4.3 Create single paragraphs with topic sentences and simple supporting facts and details.

Research and Technology

3.4.4 Use various reference materials (such as a dictionary, thesaurus, atlas, encyclopedia, and online resources).

3.4.5 Use a computer to draft, revise, and publish writing.

Evaluation and Revision

3.4.6 Review, evaluate, and revise writing for meaning and clarity.

3.4.7 Proofread one's own writing, as well as that of others, using an editing checklist or list of rules.

3.4.8 Revise writing for others to read, improving the focus and progression of ideas.

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Standard 5

WRITING: Applications

(Different Types of Writing and Their Characteristics)

At Grade 3, students continue to write compositions that describe and explain familiar objects, events, and experiences. Students write both informal and formal letters. Student writing demonstrates a command of Standard English and the drafting, research, and organizational strategies outlined in Standard 4 — Writing Process. Writing demonstrates an awareness of the audience (intended reader) and purpose for writing.

In addition to producing the different writing forms introduced in earlier grades, Grade 3 students use the writing strategies outlined in Standard 4 — Writing Process to:

3.5.1 Write narratives (stories) that:
- provide a context within which an action takes place.
- include details to develop the plot.

Example: Write a story based on an article in a magazine, such as *Cricket* or *Stone Soup*, about what life was like 100 years ago.

3.5.2 Write descriptive pieces about people, places, things, or experiences that:
- develop a unified main idea.
- use details to support the main idea.

Example: Write a description for how to make a model boat. Include clear enough directions so that a classmate can make the model. Write a description of a favorite place using clear details so that the reader can picture the place and understand why it is a favorite place.

3.5.3 Write personal, persuasive, and formal letters, thank-you notes, and invitations that:
- show awareness of the knowledge and interests of the audience and establish a purpose and context.
- include the date, proper salutation, body, closing, and signature.

Example: Write a letter to a pen pal in another country describing your family, school, and town and asking the pen pal questions about himself or herself. Write an invitation asking an adult to come to speak in the classroom. Write a persuasive letter to your family asking for your favorite foods on your birthday.

3.5.4 Use varied word choices to make writing interesting.

Example: Write stories using varied words, such as *cried, yelled,* or *whispered* instead of *said*.

3.5.5 Write for different purposes and to a specific audience or person.

Example: Write an article about the library at your school. Include a list of ways that students use the library.

Standard 6

WRITING: English Language Conventions

Students write using Standard English conventions appropriate to this grade level.

Handwriting

3.6.1 Write legibly in cursive, leaving space between letters in a word, words in a sentence, and words and the edges of the paper.

Sentence Structure

3.6.2 Write correctly complete sentences of statement, command, question, or exclamation, with final punctuation.

- Declarative: *This tastes very good.*
- Imperative: *Please take your seats.*
- Interrogative: *Are we there yet?*
- Exclamatory: *It's a home run!*

Grammar

3.6.3 Identify and use subjects and verbs that are in agreement (*we are* instead of *we is*).

3.6.4 Identify and use past (*he danced*), present (*he dances*), and future (*he will dance*) verb tenses properly in writing.

3.6.5 Identify and correctly use pronouns (*it, him, her*), adjectives (*brown eyes, two younger sisters*), compound nouns (*summertime, snowflakes*), and articles (*a, an, the*) in writing.

Punctuation

3.6.6 Use commas in dates (*August 15, 2001*), locations (*Fort Wayne, Indiana*), and addresses (*431 Coral Way, Miami, FL*), and for items in a series (*football, basketball, soccer, and tennis*).

Capitalization

3.6.7 Capitalize correctly geographical names, holidays, historical periods, and special events (*We always celebrate the Fourth of July by gathering at Mounds State Park in Anderson, Indiana.*)

Spelling

3.6.8 Spell correctly one-syllable words that have blends (*walk, play, blend*), contractions (*isn't, can't*), compounds, common spelling patterns (*qu-*, changing *win* to *winning*, and changing the ending of a word from *-y* to *-ies* to make a plural, such as *cherry/cherries*), and common homophones (words that sound the same but have different spellings, such as *hair/hare*).

3.6.9 Arrange words in alphabetical order.

Example: Given a list of words, such as *apple, grapefruit, cherry, banana, pineapple,* and *peach,* put them into correct alphabetical order: *apple, banana, cherry, grapefruit, peach, pineapple.*

Standard 7

LISTENING AND SPEAKING: Skills, Strategies, and Applications

Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation (raising and lowering voice). Students deliver brief oral presentations about familiar experiences or interests that are organized around a coherent thesis statement (a statement of topic). Students use the same Standard English conventions for oral speech that they use in their writing.

Comprehension

3.7.1 Retell, paraphrase, and explain what a speaker has said.

3.7.2 Connect and relate experiences and ideas to those of a speaker.

3.7.3 Answer questions completely and appropriately.

3.7.4 Identify the musical elements of literary language, such as rhymes, repeated sounds, and instances of onomatopoeia (naming something by using a sound associated with it, such as *hiss* or *buzz*).

Organization and Delivery of Oral Communication

3.7.5 Organize ideas chronologically (in the order that they happened) or around major points of information.

3.7.6 Provide a beginning, a middle, and an end to oral presentations, including details that develop a central idea.

3.7.7 Use clear and specific vocabulary to communicate ideas and establish the tone.

3.7.8 Clarify and enhance oral presentations through the use of appropriate props, including objects, pictures, and charts.

3.7.9 Read prose and poetry aloud with fluency, rhythm, and timing, using appropriate changes in the tone of voice to emphasize important passages of the text being read.

Analysis and Evaluation of Oral and Media Communications

3.7.10 Compare ideas and points of view expressed in broadcast, print media, or the Internet.

3.7.11 Distinguish between the speaker's opinions and verifiable facts.

Speaking Applications

3.7.12 Make brief narrative (story) presentations that:
- provide a context for an event that is the subject of the presentation.
- provide insight into why the selected event should be of interest to the audience.
- include well-chosen details to develop characters, setting, and plot.

3.7.13 Plan and present dramatic interpretations of experiences, stories, poems, or plays.

3.7.14 Make descriptive presentations that use concrete sensory details to set forth and support unified impressions of people, places, things, or experiences.

Grade 3

Mathematics

Mathematics

In this technological age, mathematics is more important than ever. When students leave school, they are more and more likely to use mathematics in their work and everyday lives — operating computer equipment, planning timelines and schedules, reading and interpreting data, comparing prices, managing personal finances, and completing other problem-solving tasks. What they learn in mathematics and how they learn it will provide an excellent preparation for a challenging and ever-changing future.

The state of Indiana has established the following mathematics Standards to make clear to teachers, students, and parents what knowledge, understanding, and skills students should acquire in Grade 3:

Standard 1 — Number Sense

Understanding the number system is the basis of mathematics. Students extend their understanding of the place value system to count, read, and write numbers up to 1,000. They learn to order and round numbers up to 1,000. They develop the concept of equivalent fractions — fractions that look different, but have the same value — and use their understanding of equivalent fractions to compare the sizes of fractions. They also begin to develop the concept of decimals as a different way of representing fractional numbers.

Standard 2 — Computation

Fluency in computation is essential. As students learn about the whole numbers up to 1,000, they learn how to add and subtract them. They develop the concepts of multiplication and division from addition and subtraction and learn basic multiplication and division facts. They also start to add and subtract fractions with the same denominator.

Standard 3 — Algebra and Functions

Algebra is a language of patterns, rules, and symbols. Students at this level represent relationships with numeric equations and use those equations to solve problems. They continue number patterns involving multiplication and use some of the rules for multiplication to check results. They begin to develop the concept of a function and the relationship between numbers and number lines.

Standard 4 — Geometry

Students learn about geometric shapes and develop a sense of space. They identify quadrilaterals and learn about right angles as a basis for comparing other angles. They describe and classify three-dimensional shapes. They use the basic terms point, line, and line segment to describe shapes. They also develop the concept of mirror-image symmetry and draw lines of symmetry.

Standard 5 — Measurement

The study of measurement is essential because of its uses in many aspects of everyday life. Students measure length to the nearest half-inch, add units of length, and find the perimeters of shapes. They estimate area and volume in preparation for developing formulas for calculating them. They estimate, measure, and compare weights, capacities, and temperatures in standard units. They also learn about money: the value of any collection of coins and dollars, writing money using the $ symbol, and deciding whether they have enough money to make a purchase.

Standard 6 — Problem Solving

In a general sense, mathematics is problem solving. In all mathematics, students use problem-solving skills: they choose how to approach a problem, they explain their reasoning, and they check their results. As they develop their skills with numbers, geometry, or measurement, for example, students move from simple ideas to more complex ones by taking logical steps that build a better understanding of mathematics.

As part of their instruction and assessment, students should also develop the following learning skills by Grade 12 that are woven throughout the mathematics Standards:

Communication

The ability to read, write, listen, ask questions, think, and communicate about math will develop and deepen students' understanding of mathematical concepts. Students should read text, data, tables, and graphs with comprehension and understanding. Their writing should be detailed and coherent, and they should use correct mathematical vocabulary. Students should write to explain answers, justify mathematical reasoning, and describe problem-solving strategies.

Reasoning and Proof

Mathematics is developed by using known ideas and concepts to develop others. Repeated addition becomes multiplication. Multiplication of numbers less than ten can be extended to numbers less than one hundred and then to the entire number system. Knowing how to find the area of a right triangle extends to all right triangles. Extending patterns, finding even numbers, developing formulas, and proving the Pythagorean Theorem are all examples of mathematical reasoning. Students should learn to observe, generalize, make assumptions from known information, and test their assumptions.

Representation

The language of mathematics is expressed in words, symbols, formulas, equations, graphs, and data displays. The concept of one-fourth may be described as a quarter, ¼, one divided by four, 0.25, ⅕ + ⅕, 25 percent, or an appropriately shaded portion of a pie graph. Higher-level mathematics involves the use of more powerful representations: exponents, logarithms, π, unknowns, statistical representation, algebraic and geometric expressions. Mathematical operations are expressed as representations: +, =, divide, square. Representations are dynamic tools for solving problems and communicating and expressing mathematical ideas and concepts.

Connections

Connecting mathematical concepts includes linking new ideas to related ideas learned previously, helping students to see mathematics as a unified body of knowledge whose concepts build upon each other. Major emphasis should be given to ideas and concepts across mathematical content areas that help students see that mathematics is a web of closely connected ideas (algebra, geometry, the entire number system). Mathematics is also the common language of many other disciplines (science, technology, finance, social science, geography) and students should learn mathematical concepts used in those disciplines. Finally, students should connect their mathematical learning to appropriate real-world contexts.

Number Sense

Students understand the relationships among numbers, quantities, and place value in whole numbers up to 1,000. They understand the relationship among whole numbers, simple fractions, and decimals.*

3.1.1 **Count, read, and write whole numbers up to 1,000.**

Example: Write 349 for the number "three hundred forty-nine".

3.1.2 **Identify and interpret place value in whole numbers up to 1,000.**

Example: Understand that the 7 in 479 represents 7 tens or 70.

3.1.3 **Use words, models, and expanded form to represent numbers up to 1,000.**

Example: Recognize that 492 = 400 + 90 + 2.

3.1.4 **Identify any number up to 1,000 in various combinations of hundreds, tens, and ones.**

Example: 325 can be written as 3 hundreds, 2 tens, and 5 ones, or as 2 hundreds, 12 tens, and 5 ones, etc.

3.1.5 **Compare whole numbers up to 1,000 and arrange them in numerical order.**

Example: What is the smallest whole number you can make using the digits 4, 9, and 1? Use each digit exactly once.

3.1.6 **Round numbers less than 1,000 to the nearest ten and the nearest hundred.**

Example: Round 548 to the nearest ten.

3.1.7 **Identify odd and even numbers up to 1,000 and describe their characteristics.**

Example: Find the even number: 47, 106, 357, 629.

3.1.8 **Show equivalent fractions* using equal parts.**

Example: Draw pictures to show that $\frac{3}{5}$, $\frac{6}{10}$, and $\frac{9}{15}$ are equivalent fractions.

3.1.9 **Identify and use correct names for numerators and denominators.**

Example: In the fraction $\frac{3}{5}$, name the numerator and denominator.

3.1.10 **Given a pair of fractions, decide which is larger or smaller by using objects or pictures.**

Example: Is $\frac{3}{4}$ of a medium pizza larger or smaller than $\frac{1}{2}$ of a medium pizza? Explain your answer.

3.1.11 **Given a set* of objects or a picture, name and write a decimal to represent tenths and hundredths.**

Example: You have a pile of 100 beans and 72 of them are lima beans. Write the decimal that represents lima beans as a part of the whole pile of beans.

3.1.12 **Given a decimal for tenths, show it as a fraction using a place-value model.**

Example: Show the decimal 0.7 as a fraction using pennies.

3.1.13 **Interpret data displayed in a circle graph and answer questions about the situation.**

Example: Have the students in your class choose the pizza they like best from these choices: cheese, sausage, pepperoni. Use a spreadsheet to enter the number of students who chose each kind and make a circle graph of the data. Determine the most popular and the least popular kind of pizza, and explain what the circle and each pie slice represent.

3.1.14 **Identify whether everyday events are certain, likely, unlikely, or impossible.**

Example: It is raining in your neighborhood. Is it certain, likely, unlikely, or impossible that the tree in your front yard will get wet?

3.1.15 **Record the possible outcomes for a simple probability experiment.**

Example: Predict how many heads and tails will occur if a coin is tossed 10 times. Have a partner toss a coin while you keep a tally of the outcomes. Exchange places with your partner and repeat the experiment. Explain your results to the class.

* whole numbers: 0, 1, 2, 3, etc.
* equivalent fractions: fractions with the same value (e.g., $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, etc.)
* set: collection of objects, numbers, etc.

Standard 2

Computation

Students solve problems involving addition and subtraction of whole numbers. They model and solve simple problems involving multiplication and division.

3.2.1 **Add and subtract whole numbers up to 1,000 with or without regrouping, using relevant properties of the number system.**

Example: $854 - 427 = ?$ Explain your method.

3.2.2 **Represent the concept of multiplication as repeated addition.**

Example: Lynn made 3 baskets each week for 4 weeks. Draw a picture to show how many baskets she made.

3.2.3 **Represent the concept of division as repeated subtraction, equal sharing, and forming equal groups.**

Example: Bob shared 10 cookies among 5 friends. Draw a picture to show how many cookies each friend got.

3.2.4 **Know and use the inverse relationship between multiplication and division facts, such as $6 \times 7 = 42$, $42 \div 7 = 6$, $7 \times 6 = 42$, $42 \div 6 = 7$.**

Example: Find other facts related to $8 \times 3 = 24$.

3.2.5 **Show mastery of multiplication facts for 2, 5, and 10.**

Example: Know the answer to 6×5.

3.2.6 **Add and subtract simple fractions with the same denominator.**

Example: Add $\frac{3}{8}$ and $\frac{1}{8}$. Explain your answer.

3.2.7 **Use estimation to decide whether answers are reasonable in addition and subtraction problems.**

Example: Your friend says that $79 - 22 = 27$. Without solving, explain why you think the answer is wrong.

3.2.8 Use mental arithmetic to add or subtract with numbers less than 100.

Example: Subtract 35 from 86 without using pencil and paper.

Standard 3

Algebra and Functions

Students select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number and functional relationships.

3.3.1 Represent relationships of quantities in the form of a numeric expression or equation.

Example: Bill's mother gave him money to buy three drinks that cost 45 cents each at the concession stand. When he returned to the bleachers, he gave 25 cents change to his mother. Write an equation to find the amount of money Bill's mother originally gave him.

3.3.2 Solve problems involving numeric equations.

Example: Use your equation from the last example to find the amount of money that Bill's mother gave him, and justify your answer.

3.3.3 Choose appropriate symbols for operations and relations to make a number sentence true.

Example: What symbol is needed to make the number sentence 4 _ 3 = 12 true?

3.3.4 Understand and use the commutative* and associative* rules of multiplication.

Example: Multiply the numbers 7, 2, and 5 in this order. Now multiply them in the order 2, 5, and 7. Which was easier? Why?

3.3.5 Create, describe, and extend number patterns using multiplication.

Example: What is the next number: 3, 6, 12, 24, ...? How did you find your answer?

3.3.6 Solve simple problems involving a functional relationship between two quantities.

Example: Ice cream sandwiches cost 20 cents each. Find the costs of 1, 2, 3, 4, ... ice cream sandwiches. What pattern do you notice? Continue the pattern to find the cost of enough ice cream sandwiches for the class.

3.3.7 Plot and label whole numbers on a number line up to 10.

Example: Mark the position of 7 on a number line up to 10.

* commutative rule: the order when multiplying numbers makes no difference (e.g., $5 \times 3 = 3 \times 5$), but note that this rule is not true for division

* associative rule: the grouping when multiplying numbers makes no difference (e.g., in $5 \times 3 \times 2$, multiplying 5 and 3 and then multiplying by 2 is the same as 5 multiplied by 3×2), but note that this rule is not true for division

Standard 4

Geometry

Students describe and compare the attributes of plane and solid geometric shapes and use their understanding to show relationships and solve problems.

3.4.1 Identify quadrilaterals* as four-sided shapes.

Example: Which of these are quadrilaterals: square, triangle, rectangle?

3.4.2 Identify right angles in shapes and objects and decide whether other angles are greater or less than a right angle.

Example: Identify right angles in your classroom. Open the classroom door until it makes a right angle with one wall and explain what you are doing.

3.4.3 Identify, describe, and classify: cube, sphere*, prism*, pyramid, cone, cylinder.

Example: Describe the faces of a pyramid and identify its characteristics.

3.4.4 Identify common solid objects that are the parts needed to make a more complex solid object.

Example: Describe and draw a house made from a prism and a pyramid.

3.4.5 Draw a shape that is congruent* to another shape.

Example: Draw a triangle that is congruent to a given triangle. You may use a ruler and pencil or the drawing program on a computer.

3.4.6 Use the terms point, line, and line segment in describing two-dimensional shapes.

Example: Describe the way a triangle is made of points and line segments and how you know it is a triangle.

3.4.7 Draw line segments and lines.

Example: Draw a line segment three inches long.

3.4.8 Identify and draw lines of symmetry in geometric shapes (by hand or using technology).

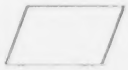
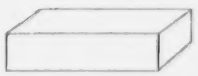
Example: Use pencil and paper or a drawing program to draw lines of symmetry in a square. Discuss your findings.

3.4.9 Sketch the mirror image reflections of shapes.

Example: Hold up a cardboard letter F to a mirror. Draw the letter and the shape you see in the mirror.

3.4.10 Recognize geometric shapes and their properties in the environment and specify their locations.

Example: Write the letters of the alphabet and draw all the lines of symmetry that you see.

* quadrilateral: a two-dimensional figure with four sides 
* sphere: round ball like a baseball
* prism: solid shape with fixed cross-section (a right prism is a solid shape with two parallel faces that are congruent polygons and other faces that are rectangles) 
* congruent: two figures that are the same shape and size

Standard 5

Measurement

Students choose and use appropriate units and measurement tools for length, capacity, weight, temperature, time, and money.

3.5.1 **Measure line segments to the nearest half-inch.**

Example: Measure the length of a side of a triangle.

3.5.2 **Add units of length that may require regrouping of inches to feet or centimeters to meters.**

Example: Add the lengths of three sheets of paper. Give your answer in feet and inches.

3.5.3 **Find the perimeter of a polygon*.**

Example: Find the perimeter of a table in centimeters. Explain your method.

3.5.4 **Estimate or find the area of shapes by covering them with squares.**

Example: How many square tiles do we need to cover this desk?

3.5.5 **Estimate or find the volume of objects by counting the number of cubes that would fill them.**

Example: How many of these cubes will fill the box?

3.5.6 **Estimate and measure capacity using quarts, gallons, and liters.**

Example: This bottle holds one liter. Estimate how many liters the sink holds.

3.5.7 **Estimate and measure weight using pounds and kilograms.**

Example: Estimate the weight of your book bag in pounds.

3.5.8 **Compare temperatures in Celsius and Fahrenheit.**

Example: Measure the room temperature using a thermometer that has both Celsius and Fahrenheit units. If the temperature in the room measures 70°F, will the Celsius measurement be higher or lower?

3.5.9 **Tell time to the nearest minute and find how much time has elapsed.**

Example: You start a project at 9:10 a.m. and finish the project at 9:42 a.m. How much time has passed?

3.5.10 **Find the value of any collection of coins and bills. Write amounts less than a dollar using the ¢ symbol and write larger amounts in decimal notation using the $ symbol.**

Example: You have 5 quarters and 2 dollar bills. How much money is that? Write the amount.

3.5.11 **Use play or real money to decide whether there is enough money to make a purchase.**

Example: You have $5. Can you buy two books that cost $2.15 each? What about three books that cost $1.70 each? Explain how you know.

3.5.12 **Carry out simple unit conversions within a measurement system (e.g., centimeters to meters, hours to minutes).**

Example: How many minutes are in 3 hours?

* polygon: two-dimensional shape with straight sides (e.g., triangle, rectangle, pentagon)

Standard 6

Problem Solving

Students make decisions about how to approach problems and communicate their ideas.

3.6.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.

Example: Solve the problem: "Start with any number. If it is even, halve it. If it is odd, add 1. Do the same with the result and keep doing that. Find what happens by trying different numbers." Try two or three numbers and look for patterns.

3.6.2 Decide when and how to break a problem into simpler parts.

Example: In the first example, find what happens to all the numbers up to 10.

Students use strategies, skills, and concepts in finding and communicating solutions to problems.

3.6.3 Apply strategies and results from simpler problems to solve more complex problems.

Example: In the first example, use your results for the numbers up to 10 to find what happens to all the numbers up to 20.

3.6.4 Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.

Example: In the first example, explain what happens to all the numbers that you tried.

3.6.5 Recognize the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.

Example: Measure the length and width of a room to the nearest meter to find how many student desks will fit in it. Would this be an accurate enough method if you were carpeting the room?

3.6.6 Know and use strategies for estimating results of whole-number addition and subtraction.

Example: You buy 2 bags of candy for $1.05 each. The cashier tells you that will be $1.70. Does that surprise you? Why or why not?

3.6.7 Make precise calculations and check the validity of the results in the context of the problem.

Example: In the first example, notice that the result of adding 1 to an odd number is always even. Use this to check your calculations.

Students determine when a solution is complete and reasonable and move beyond a particular problem by generalizing to other situations.

3.6.8 Decide whether a solution is reasonable in the context of the original situation.

Example: In the example about fitting desks into a room, would an answer of 1,000 surprise you?

3.6.9 Note the method of finding the solution and show a conceptual understanding of the method by solving similar problems.

Example: Change the first example so that you multiply odd numbers by 2 or 3 or 4 or 5, before adding 1. Describe the pattern you see.

NOTES

The Indiana Academic Standards for science contain six Standards. Each Standard is described below. On the pages that follow, age-appropriate concepts are listed underneath each Standard. These ideas build a foundation for understanding the intent of each Standard.

Standard 1 — The Nature of Science and Technology

It is the union of science and technology that forms the scientific endeavor and that makes it so successful. Although each of these human enterprises has a character and history of its own, each is dependent on and reinforces the other. This first Standard draws portraits of science and technology that emphasize their roles in the scientific endeavor and reveal some of the similarities and connections between them. In order for students to truly understand the nature of science and technology, they must model the process of scientific investigation through inquiries, fieldwork, lab work, etc. Through these experiences, students will practice designing investigations and experiments, making observations, and formulating theories based on evidence.

Standard 2 — Scientific Thinking

There are certain thinking skills associated with science, mathematics, and technology that young people need to develop during their school years. These are mostly, but not exclusively, mathematical and logical skills that are essential tools for both formal and informal learning and for a lifetime of participation in society as a whole. Good communication is also essential in order to both receive and disseminate information and to understand others' ideas as well as have one's own ideas understood. Writing, in the form of journals, essays, lab reports, procedural summaries, etc., should be an integral component of students' experiences in science.

Standard 3 — The Physical Setting

One of the grand success stories of science is the unification of the physical universe. It turns out that all natural objects, events, and processes are connected to each other. This Standard contains recommendations for basic knowledge about the overall structure of the universe and the physical principles on which it seems to run, with emphasis on Earth and the solar system. This Standard focuses on two principle subjects: the structure of the universe and the major processes that have shaped planet Earth, and the concepts with which science describes the physical world in general – organized under the headings of *Matter and Energy* and *Forces of Nature*. In Grade 3, students learn that most changes that occur on Earth and in the sky are observable.

Standard 4 — The Living Environment

People have long been curious about living things – how many different species there are, what they are like, how they relate to each other, and how they behave. Living organisms are made of the same components as all other matter, involve the same kinds of transformations of energy, and move using the same basic kinds of forces. Thus, all of the physical principles discussed in Standard 3 – The Physical Setting, apply to life as well as to stars, raindrops, and television sets. This Standard offers recommendations on basic knowledge about how living things function and how they interact with one another and their environment. In Grade 3, students learn that adaptations in physical structure or behavior may improve an organism's chance for survival.

Standard 5 — The Mathematical World

Mathematics is essentially a process of thinking that involves building and applying abstract, logically connected networks of ideas. These ideas often arise from the need to solve problems in science, technology, and everyday life — problems ranging from how to model certain aspects of a complex scientific problem to how to balance a checkbook.

Standard 6 — Common Themes

Some important themes pervade science, mathematics, and technology and appear over and over again, whether we are looking at ancient civilization, the human body, or a comet. These ideas transcend disciplinary boundaries and prove fruitful in explanation, in theory, in observation, and in design. A focus on *Constancy and Change* within this Standard provides students opportunities to engage in long-term and on-going laboratory and field work, and thus understand the role of change over time in studying The Physical Setting and The Living Environment.

Standard 1

The Nature of Science and Technology

Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.

The Scientific View of the World

3.1.1 Recognize and explain that when a scientific investigation is repeated, a similar result is expected.

Scientific Inquiry

3.1.2 Participate in different types of guided scientific investigations, such as observing objects and events and collecting specimens for analysis.

3.1.3 Keep and report records of investigations and observations* using tools, such as journals, charts, graphs, and computers.

3.1.4 Discuss the results of investigations and consider the explanations of others.

* observation: gaining information through the use of one or more of the senses, such as sight, smell, etc.

The Scientific Enterprise

3.1.5 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.

Technology and Science

3.1.6 Give examples of how tools, such as automobiles, computers, and electric motors, have affected the way we live.

3.1.7 Recognize that and explain how an invention can be used in different ways, such as a radio being used to get information and for entertainment.

3.1.8 Describe how discarded products contribute to the problem of waste disposal and that recycling can help solve this problem.

Standard 2

Scientific Thinking

Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.

Computation and Estimation

3.2.1 Add and subtract whole numbers* mentally, on paper, and with a calculator.

* whole numbers: 0, 1, 2, 3, etc.

Manipulation and Observation

3.2.2 Measure and mix dry and liquid materials in prescribed amounts, following reasonable safety precautions.

3.2.3 Keep a notebook that describes observations and is understandable weeks or months later.

3.2.4 Appropriately use simple tools, such as clamps, rulers, scissors, hand lenses, and other technology, such as calculators and computers, to help solve problems.

3.2.5 Construct something used for performing a task out of paper, cardboard, wood, plastic, metal, or existing objects.

Communication Skills

3.2.6 Make sketches and write descriptions to aid in explaining procedures or ideas.

Critical Response Skills

3.2.7 Ask "How do you know?" in appropriate situations and attempt reasonable answers when others ask the same question.

Standard 3

The Physical Setting

Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion*.*

The Universe

3.3.1 Observe and describe the apparent motion of the sun and moon over a time span of one day.

3.3.2 Observe and describe that there are more stars in the sky than anyone can easily count, but they are not scattered evenly.

3.3.3 Observe and describe that the sun can be seen only in the daytime.

3.3.4 Observe and describe that the moon looks a little different every day, but looks the same again about every four weeks.

* energy: what is needed to make things move
* motion: the change in position of an object in a certain amount of time

The Earth and the Processes That Shape It

3.3.5 Give examples of how change, such as weather patterns, is a continual process occurring on Earth.

3.3.6 Describe ways human beings protect themselves from adverse weather conditions.

3.3.7 Identify and explain some effects human activities have on weather.

Matter* and Energy

3.3.8 Investigate and describe how moving air and water can be used to run machines, like windmills and waterwheels.

* matter: anything that has mass* and takes up space
* mass: the amount of matter in an object

Forces of Nature

3.3.9 Demonstrate that things that make sound do so by vibrating, such as vocal cords and musical instruments.

Standard 4

The Living Environment

Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.

Diversity of Life

3.4.1 Demonstrate that a great variety of living things can be sorted into groups in many ways using various features, such as how they look, where they live, and how they act, to decide which things belong to which group.

3.4.2 Explain that features used for grouping depend on the purpose of the grouping.

3.4.3 Observe that and describe how offspring are very much, but not exactly, like their parents and like one another.

Interdependence of Life and Evolution

3.4.4 Describe that almost all kinds of animals' food can be traced back to plants.

3.4.5 Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today.

Human Identity

3.4.6 Explain that people need water, food, air, waste removal, and a particular range of temperatures, just as other animals do.

3.4.7 Explain that eating a variety of healthful foods and getting enough exercise and rest help people to stay healthy.

3.4.8 Explain that some things people take into their bodies from the environment can hurt them and give examples of such things.

3.4.9 Explain that some diseases are caused by germs and some are not. Note that diseases caused by germs may be spread to other people. Also understand that washing hands with soap and water reduces the number of germs that can get into the body or that can be passed on to other people.

Standard 5

The Mathematical World

Students apply mathematics in scientific contexts. Students make more precise and varied measurements when gathering data. Based upon collected data, they pose questions and solve problems. Students use numbers to record data and construct graphs and tables to communicate their findings.

Numbers

3.5.1 Select and use appropriate measuring units, such as centimeters (cm) and meters (m), grams (g) and kilograms (kg), and degrees Celsius (°C).

3.5.2 Observe that and describe how some measurements are likely to be slightly different, even if what is being measured stays the same.

Shapes and Symbolic Relationships

3.5.3 Construct tables and graphs to show how values of one quantity are related to values of another.

3.5.4 Illustrate that if 0 and 1 are located on a line, any other number can be depicted as a position on the line.

Reasoning and Uncertainty

3.5.5 Explain that one way to make sense of something is to think of how it relates to something more familiar.

Standard 6

Common Themes

Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.

Systems

3.6.1 Investigate how and describe that when parts are put together, they can do things that they could not do by themselves.

3.6.2 Investigate how and describe that something may not work if some of its parts are missing.

Models and Scale

3.6.3 Explain how a model of something is different from the real thing but can be used to learn something about the real thing.

Constancy and Change

3.6.4 Take, record, and display counts and simple measurements of things over time, such as plant or student growth.

3.6.5 Observe that and describe how some changes are very slow and some are very fast and that some of these changes may be hard to see and/or record.

Grade 3

Social Studies

The Local Community and Communities Around the World

In Grade 3, students study continuity and change in their local community and in communities in other states and regions of the world. They also learn how people have created and shaped their communities over time, the roles of citizens and functions of government in the community, state, and nation, and how people in communities interact with their environment, develop and use technology, and use human and natural resources.

The K – 8 Indiana Academic Standards for social studies are organized around five content areas. The content area Standards and the types of learning experiences they provide to students in Grade 3 are described below. On the pages that follow, age-appropriate concepts are listed underneath each Standard. Skills for thinking, inquiry, and participation in a democratic society are integrated throughout. Specific terms are defined and examples are provided when necessary.

Standard 1 — History

Students will describe how significant people, events, and developments have shaped their own community and region; compare their community to other communities and regions in other times and places; and use a variety of resources to gather information about the past.

Standard 2 — Civics and Government

Students will explain what it means to be citizens of their community, state, and nation; be able to identify the functions and the major services provided by local governments; use a variety of resources to gather information about government in their community and other communities around the world; and demonstrate understanding of democratic principles and practices.

Standard 3 — Geography

Students will explain that latitude and longitude are used to locate places on maps and globes, and begin to understand Earth/sun relationships, identify the distinctive physical and cultural features of their community, and explain the geographic relationships of their own community with the state, nation, and world.

Standard 4 — Economics

Students will explain how people in the local community make choices about using goods, services, and productive resources, how they engage in trade to satisfy their economic wants, how they use a variety of sources to gather and apply information about economic changes in the community, and how they compare costs and benefits in economic decision making.

Standard 5 — Individuals, Society, and Culture

Students will explain how communities are made up of individuals and groups of people, explore local connections with communities in other places, examine the contributions of people from various cultures to the development of the community, and use a variety of resources to collect information about the culture of the community.

Standard 1

History

Students will describe how significant people, events, and developments have shaped their own community and region; compare their community to other communities and regions in other times and places; and use a variety of resources to gather information about the past.

Historical Knowledge

3.1.1 Describe American Indian groups who lived in the region when European settlers arrived.

3.1.2 Explain why and how the local community was established, and identify founders and early settlers.

3.1.3 Describe the role of specific communities in the development of the region.

Example: Explain the role of river towns, such as Madison or Clarksville, or urban centers, such as Indianapolis, in the development of regions of Indiana.

3.1.4 Give examples of people, events, and developments that brought important changes to the local community or region.

Example: Developments in transportation, such as the building of canals, roads, and railroads connected communities and caused changes in population or industry.

Chronological Thinking, Comprehension, Analysis, and Interpretation

3.1.5 Develop simple timelines of events in the local communities.

Example: Use a school newsletter or local newspaper to make a timeline of current events.

3.1.6 Read fiction and non-fiction stories to identify the qualities of leaders, such as community leaders, soldiers, presidents, teachers, and inventors.

Research Capabilities

3.1.7 Use a variety of community resources, such as libraries, museums, and county historians, to gather information about the local community.

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Standard 2

Civics and Government

Students will explain what it means to be citizens of their community, state, and nation; be able to identify the functions and the major services provided by local governments; use a variety of resources to gather information about government in their community and other communities around the world; and demonstrate understanding of democratic principles and practices.

Foundations of Government

3.2.1 Explain that people are citizens* of their community, state, and nation, and explain the importance of good citizenship*.

3.2.2 Identify fundamental democratic principles and ideals in American songs, stories, and symbols.

Example: Songs and stories may emphasize freedom and equality. Symbols, such as the flag, emphasize unity and other ideals.

* citizen: a member of a community, state, or nation

* citizenship: the act of practicing one's rights and responsibilities as a member of a community, state, or nation

Functions of Government

3.2.3 Discuss the reasons why governments are needed, and identify specific services that governments provide.

Example: Democratic governments protect individual rights and provide services, such as law enforcement.

3.2.4 Explain the consequences of violating laws, and identify the duties of and selection process for local officials who make, apply, and enforce laws through government.

3.2.5 Explain that the world is divided into different countries with their own governments, and identify neighboring countries, such as Canada and Mexico.

Roles of Citizens

3.2.6 Discuss and explain the meaning of the Pledge of Allegiance*. Explain other ways citizens can affirm their citizenship.

Example: Students should know that the flag is a symbol of our unity as a nation and that the Pledge of Allegiance is a promise to be loyal to our republic*. Other ways that citizens affirm their citizenship include voting and jury duty.

3.2.7 Use a variety of information resources* to gather information about community leaders and civic issues.

Example: Identify leaders and issues from school newsletters, newspaper headlines, photographs, editorial cartoons, television, and other information resources.

* Pledge of Allegiance: "I pledge allegiance to the flag of the United States of America, and to the Republic for which it stands, one Nation under God, indivisible, with liberty and justice for all." (Francis Bellamy, 1892)

* republic: government ruled by representatives chosen by the people

* information resources: print media, including books, magazines, and newspapers; electronic media, such as radio, television, Web sites, and databases; and community resources, such as individuals and organizations

Standard 3

Geography

Students will explain that latitude and longitude are used to locate places on maps and globes, and begin to understand Earth/sun relationships, identify the distinctive physical and cultural features of their community, and explain the geographic relationships of their own community with the state, nation, and world.

The World in Spatial Terms

3.3.1 Distinguish between physical and political features on maps and globes, and label a map of North America identifying countries, oceans, major rivers, the Great Lakes, and mountain ranges. Locate the United States, Indiana, and the local community.

3.3.2 Identify the continents and oceans, the equator, Northern and Southern hemispheres, Eastern and Western hemispheres.

Places and Regions

3.3.3 Explain that regions are areas which have similar physical and cultural characteristics*, and locate the local community in a specific region.

Example: States touching the Great Lakes are part of the Great Lakes Region. The same states are also considered part of the "Lower Midwest" because of their location relative to other states.

3.3.4 Explain basic Earth/sun relationships*, including how they influence climate, and identify major climate regions* of the United States.

* cultural characteristics: human features, such as population characteristics, communication and transportation networks, religion and customs, how people make a living or build homes and other structures

* Earth/sun relationships: the rotation of Earth on its axis, the revolution of Earth around the sun, and the tilt of Earth on its axis – all factors that influence climate

* regions: areas that have common characteristics

Physical Systems

3.3.5 Explain how climate affects the vegetation and animal life of a region, and describe the physical characteristics that relate to form an ecosystem*.

* ecosystem: a system formed by the interaction of living things with their physical environment

Human Systems

3.3.6 Construct maps and graphs that show aspects of human/environment interaction in the local community.

Example: Patterns of rural, urban, and suburban development.

Environment and Society

3.3.7 Use a variety of information resources* to identify local environmental issues and examine the ways that people have tried to solve these problems.

Example: Research how the community gets its water today compared with how early settlers got their water.

* information resources: print media, including books, magazines, and newspapers; electronic media, such as radio, television, Web sites, and databases; and community resources, such as individuals and organizations

Standard 4

Economics

Students will explain how people in the local community make choices about using goods, services, and productive resources, how they engage in trade to satisfy their economic wants, how they use a variety of sources to gather and apply information about economic changes in the community, and how they compare costs and benefits in economic decision making.

3.4.1 Give examples from the local community that illustrate the scarcity* of productive resources*. Explain how this scarcity requires people to make choices and incur opportunity costs*.

3.4.2 Give examples of goods* and services* provided by local government.

3.4.3 Give examples of trade* in the local community and explain how trade benefits both parties.

3.4.4 Define interdependence* and give examples of how people in the local community depend on each other for goods and services.

3.4.5 List the characteristics of money* and explain how money* makes trade easier.

3.4.6 Identify different ways people save their income and explain advantages and disadvantages of each.

Example: Home "piggy bank," savings accounts, stock market, etc.

3.4.7 Explain that buyers and sellers interact to determine the prices of goods and services in markets.

3.4.8 Illustrate how people compare benefits and costs when making choices and decisions as consumers and producers.

Example: When a family is deciding whether to buy a car, they have to compare the benefit of having personal transportation with the cost of buying and maintaining the car.

3.4.9 Gather data about a proposed economic change in the community using a variety of information resources*.

Example: Invite a community leader to discuss the decision to build a bigger library or baseball park in the community.

* scarcity: the idea that resources are limited in relation to people's wants

* productive resources: human resources, natural resources, and capital resources

* opportunity costs: in making choices, opportunity costs is the next best alternative you do not choose
* goods: objects, such as food or a toy, that can satisfy people's wants
* services: actions that someone does for someone else, such as dental care or trash removal
* trade: voluntary exchange of goods and services
* interdependence: reliance on each other to produce goods and services
* characteristics of money: scarce (not easily found or duplicated), durable, easy to carry, and easy to divide
* money: objects widely accepted in exchange for goods and services
* information resources: print media, including books, magazines, and newspapers; electronic media, such as radio, television, Web sites, and databases; and community resources, such as individuals and organizations

Standard 5

Individuals, Society, and Culture

Students will explain how communities are made up of individuals and groups of people, explore local connections with communities in other places, examine the contributions of people from various cultures to the development of the community, and use a variety of resources to collect information about the culture of the community.

3.5.1 Give examples of how the local community is made up of many individuals, as well as many different groups.

Example: Communities are made up of families, as well as businesses and industry, religious and civic groups, and governing bodies.

3.5.2 Identify connections that the local community has with other communities, including cultural exchanges of several types, and ways that technology links communities in other places.

Example: Some nearby communities share cultural institutions, such as schools or museums. Other communities may have "sister cities" in other parts of the world. The technology of transportation and communication makes these exchanges easier.

3.5.3 Examine the contributions of individual artists (painters, sculptors, writers, musicians, and traditional artists) in enriching the culture of the community.

3.5.4 Identify factors that make the local community unique, including how the community is enriched through foods, crafts, customs, languages, music, visual arts, architecture, dance, and drama representing various cultures.

3.5.5 Use community resources, such as museums, libraries, historic buildings, and other landmarks, to gather cultural information about the community.

NOTES

Questions?

If you have contacted your child's school and still need additional information, call: **1.888.544.7837**.

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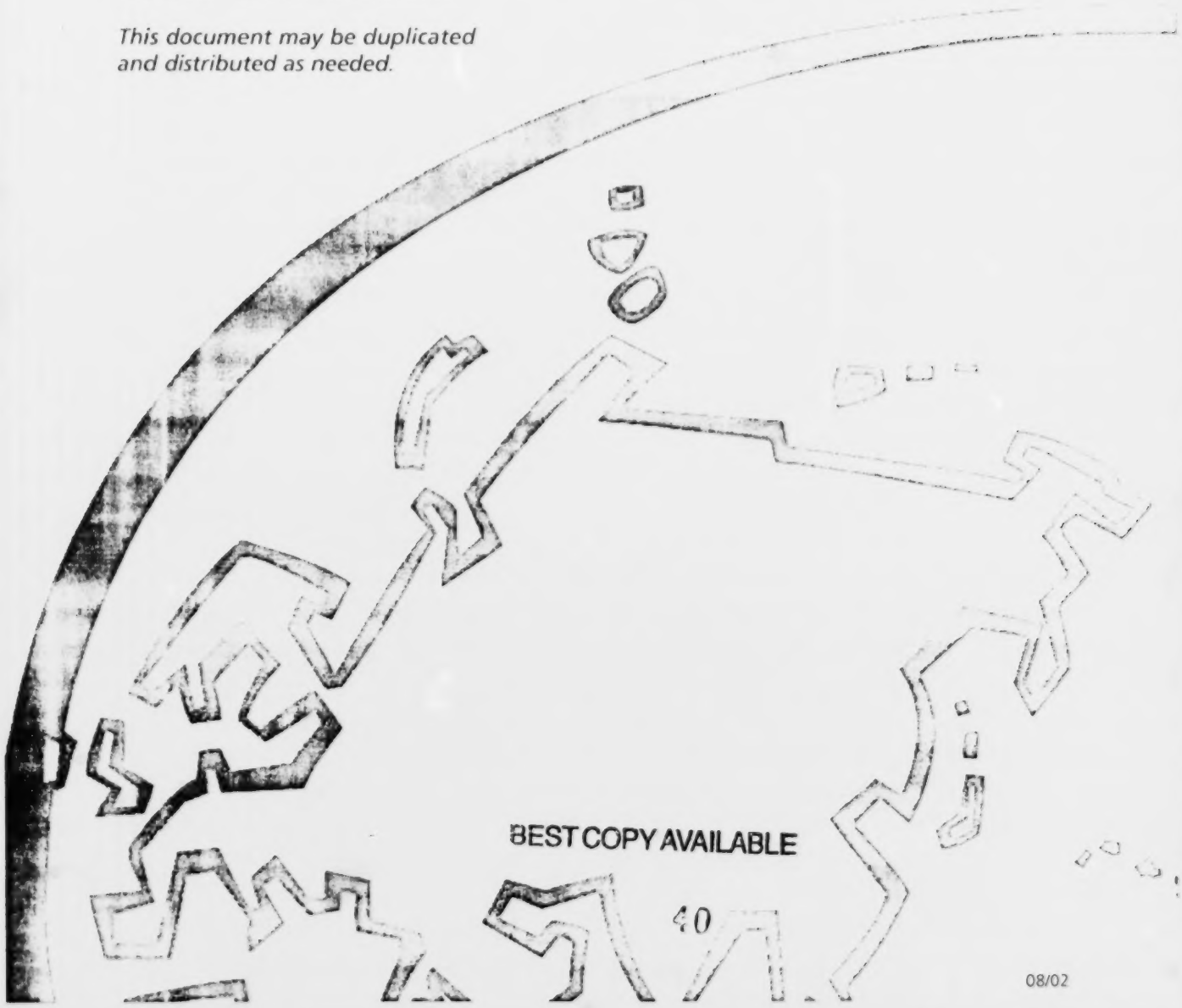

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